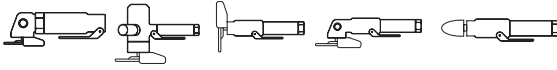




## Air Grinder



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## Product Safety Information

(English Language Only)



Save These Instructions

## Product Description

An Air Grinder is a compressed air powered hand-held rotary power tool driving a rotating arbor (spindle) on which a grinding wheel or other abrasive accessory is mounted. A guard is required on all grinders, unless used with specific abrasive products and under special conditions. See additional warnings given below for Unguarded Grinders.

### WARNING

## General Product Safety Information

- Read and understand this manual before operating this product.
- It is your responsibility to make this safety information available to others that will operate this product.
- Failure to observe the following warnings could result in injury.

### WARNING

## Product Safety Information - When Placing the Tool in Service

- Always install, operate, inspect and maintain this product in accordance with all applicable standards and regulations (local, state, country, federal, etc.).
- Always use clean, dry air at 90 psig (6.2 bar/620 kPa) maximum air pressure at the inlet. Higher pressure may result in hazardous situations including excessive speed, rupture, or incorrect output torque or force.
- Be sure all hoses and fittings are the correct size and are tightly secured.
- Ensure an accessible emergency shut off valve has been installed in the air supply line, and make others aware of its location.
- Install a properly sized Safety Air Fuse upstream of hose and use an anti-whip device across any hose coupling without internal shut-off, to prevent hose whipping if a hose fails or coupling disconnects.
- Do not use damaged, frayed or deteriorated air hoses and fittings.
- Keep clear of whipping air hoses. Shut off the compressed air before approaching a whipping hose.
- Always turn off the air supply, bleed the air pressure and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool or any accessory.
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel. Use only recommended lubricants.
- Use only proper cleaning solvents to clean parts. Use only cleaning solvents which meet current safety and health standards. Use cleaning solvents in a well ventilated area.
- Keep work area clean, uncluttered, ventilated and illuminated.
- Do not remove any labels. Replace any damaged label.
- For those grinders designed for use with wheels of four inches diameter and larger, separate the grinder from any quick-disconnect couplings by a hose whip. Never install a quick-disconnect directly into these tools.

### WARNING

## Product Safety Information - When Using the Tool

- Always wear eye protection when operating or performing maintenance on this tool.
- Always wear hearing protection when operating this tool.
- Always use Personal Protective Equipment appropriate to the tool used and material worked. This may include dust mask or other breathing apparatus, safety glasses, ear plugs, gloves, apron, safety shoes, hard hat and other equipment.
- When wearing gloves always be sure that the gloves will not prevent the throttle mechanism from being released.
- Prevent exposure and breathing of harmful dust and particles created by power tool use.
  - Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
    - lead from lead based paints,
    - crystalline silica from bricks and cement and other masonry products, and
    - arsenic and chromium from chemically treated lumber.
  - Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.
- Keep others a safe distance from your work area, or ensure they use appropriate Personal Protective Equipment.
- This tool is not designed for working in explosive environments, including those caused by fumes and dust, or near flammable materials.
- This tool is not insulated against electric shock.
- Be aware of buried, hidden or other hazards in your work environment. Do not contact or damage cords, conduits, pipes or hoses that may contain electrical wires, explosive gases or harmful liquids.
- Keep hands, loose clothing, long hair and jewelry away from working end of tool.
- Power tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
- Keep body stance balanced and firm. Do not overreach when operating this tool. Anticipate and be alert for sudden changes in motion, reaction torques, or forces during start up and operation.
- Tool and/or accessories may briefly continue their motion after throttle is released.
- To avoid accidental starting - ensure tool is in "off" position before applying air pressure, avoid throttle when carrying, and release throttle with loss of air.
- Ensure work pieces are secure. Use clamps or vises to hold work piece whenever possible.
- Do not carry or drag the tool by the hose.
- Do not use power tools when tired, or under the influence of medication, drugs, or alcohol.
- Never use a damaged or malfunctioning tool or accessory.
- Do not modify the tool, safety devices, or accessories.

- Do not use this tool for purposes other than those recommended.
- Use accessories recommended by **Ingersoll Rand**.
- Do not use this tool if the actual free speed exceeds the rated rpm. Check the free speed of the Grinder before mounting a wheel, after all tool repairs, before each job and after every 8 hours of use. Check speed with a calibrated tachometer, without the abrasive product installed.
- Do not use any wheel or other abrasive accessory whose maximum operating speed, as defined by its manufacturer, is less than the rated speed of the Grinder.
- Use only grinding wheels and other abrasive accessories recommended for this tool in **Ingersoll Rand** technical literature.
- Inspect all grinding wheels for chips or cracks prior to mounting. Do not use a wheel that is chipped, cracked or otherwise damaged.
- Inspect arbor, threads & clamping devices for damage & wear prior to mounting wheel or other abrasive accessory.
- Do not use a grinding wheel that has been exposed to freezing temperatures, extreme temperature changes, high humidity, solvents, water or other liquids.
- Make certain grinding wheel or other abrasive accessory properly fits the spindle. The wheel should not fit too snugly or too loosely. Plain hole wheels should have about .007" (0.17 mm) maximum diametral clearance. Do not use reducing bushings to adapt a wheel to any arbor unless such bushings are supplied by and recommended by the wheel manufacturer.
- Blotters shall always be used between flanges and abrasive wheel surfaces to ensure uniform distribution of flange pressure (except type 27 & 28 wheels) and shall cover the entire contact area of the wheel flange.
- Always use the wheel flanges furnished by the manufacturer and appropriate for the wheel size and type. Never use a makeshift flange or plain washer. Flanges should be in good condition and free of nicks, burrs and sharp edges.
- Ensure that the thread type and size of the threaded abrasive product exactly matches the thread type and size of the spindle.
- Prevent the spindle end from touching the bottom of the hole of cups, cones or plugs with threaded holes, intended to be mounted on machine spindles, by comparing dimensions and other relevant data for them.
- Ensure that the grinding wheel or other abrasive accessory is correctly mounted and tightened before use.
- Before starting this tool, the operator shall make sure that no one is in the plane of rotation.
- Wear Personal Protective Equipment and remove flammable objects from the work area to ensure that sparks and debris do not create a hazard when using this tool.
- After mounting a wheel or other abrasive accessory, the Grinder shall be run in a protected enclosure, at gradually increasing speed, for at least 60 seconds. Make certain no one is in front of or in line with the wheel or other abrasive accessory. Be aware that it may fail at this time if it is defective, improperly mounted or the wrong size and speed. Stop immediately if considerable vibration or other defects are detected. Shut off the air supply and determine the cause.
- Do not use this tool on materials whose dust or fumes can cause a potentially explosive environment.
- When starting a cold wheel, apply it to the work slowly until the wheel gradually warms up. Make smooth contact with the work, and avoid any bumping action or excessive pressure.
- If the grinder is dropped or bumped, turn off the air supply and carefully examine the grinding wheel or other abrasive accessory. Discard it if damaged, chipped or cracked. Before reuse, run the grinder in a protected enclosure following the same precautions used after first mounting.
- Before a grinder is put down, the throttle shall be released and the wheel or other accessory shall come to a stop. Tool rests, hangers, and balancers are recommended.

#### **Additional Warnings for Guarded Grinders**

- Do not use this Grinder without the furnished Wheel Guard.
- Incorrect combinations of grinder wheel, wheel guard and tool speed could result in injury. Ensure that combinations are correct per the Product Specifications.
- Always replace a damaged, bent or severely worn wheel guard. Do not use a wheel guard that has been subjected to wheel failure.
- Guard opening must face away from the operator. Bottom of wheel must not project beyond guard.

#### **Additional Warnings for Use of Cut-off Wheels (Type 1 and 27A)**

- When cutting, support the workpiece so the slot is kept at constant or increasing width during the whole operation.
- If the abrasive product gets jammed in a cut slot, shut off the grinder and ease the wheel free. Check that the wheel is still correctly secured and not damaged before continuing the operation.
- A cut-off wheel shall not be used for side grinding.

#### **Additional Warnings for Unguarded Grinders**

- Do not use an unguarded grinder unless used for internal work and only operated when the work offers protection.
- Do not use any Type 1 wheels that are larger than 2 inches (50mm) in diameter or more than 1/2 inch (13mm) thick, or that operate at peripheral speeds greater than 1800 Surface Feet Per Minute (9 Surface Meters per Second).
- Do not use any small cones and plugs and threaded hole pot balls unless their size does not exceed 3 inches (75mm) in diameter by 5 inches (125mm) long.
- Do not use other types of grinding wheels. Do not use wire wheels with a diameter that is greater than 2 inches (50mm) or cut-off wheels with this unguarded grinder.

### **NOTICE**

**Refer to Product Information Manual for Model Specific Safety Information.**

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## Safety Symbol Identification



Wear Respiratory Protection



Wear Eye Protection



Wear Hearing Protection






Read Manuals before Operating Product



(Dwg. MHP2598)

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## Safety Information - Explanation of Safety Signal Words

 <b>DANGER</b>	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 <b>WARNING</b>	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.
<b>NOTICE</b>	Indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.

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## Product Parts Information

 **CAUTION**

**The use of other than genuine Ingersoll Rand replacement parts may result in safety hazards, decreased tool performance and increased maintenance, and may invalidate all warranties.**

**Repairs should be made only by authorized trained personnel. Consult your nearest Ingersoll Rand Authorized Servicer.**

Manuals can be downloaded from [www.ingersollrandproducts.com](http://www.ingersollrandproducts.com).

Refer all communications to the nearest **Ingersoll Rand** Office or Distributor.

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